



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. BOX 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
|-----------------|-------------|----------------------|---------------------|------------------|

10/718,474

11/20/2003

Rodney J. Farley

43367-0300

1046

21611 7590 02/20/2007  
SNELL & WILMER LLP (OC)  
600 ANTON BOULEVARD  
SUITE 1400  
COSTA MESA, CA 92626

EXAMINER

SHAN, APRIL YING

ART UNIT

PAPER NUMBER

2135

| SHORTENED STATUTORY PERIOD OF RESPONSE | MAIL DATE | DELIVERY MODE |
|--|-----------|---------------|
|--|-----------|---------------|

3 MONTHS

02/20/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

**Office Action Summary**

Application No.

10/718,474

Applicant(s)

FARLEY ET AL.

Examiner

April Y. Shan

Art Unit

2135

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 20 November 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-21 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 November 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### DETAILED ACTION

1. Claims 1-21 have been examined.

#### *Priority*

2. Acknowledgment is made of applicant's claim the benefit of a provisional application 60/428,091, filed on November 21, 2002.

#### *Claim Rejections - 35 USC § 102*

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claim 14 is rejected under 35 U.S.C. 102(e) as being anticipated by Benaloh (U.S. Patent No. 6,886,098).

As per **claim 14**, Benaloh discloses a method of securely processing and transferring information content for use with a terminal data loader device, comprising: receiving unencrypted content ("unencrypted content 300 is provided..." – e.g. col. 6, lines 25-26); creating delivery blocks ("... The system 1400 includes a digital database 1406 comprising unencrypted content. The database 1406 is shown having a first version of a movie 1408 and a second version of a movie 1410...the database 1406 is logically divided into 8 segments 1412-1426..." – e.g. col. 13, lines 25-53 and fig. 14) and encrypting delivery blocks created from the received content ("Each segment is

Art Unit: 2135

encrypted with the corresponding encryption key...the encrypted database...is provided to the user" – e.g. abstract); writing the delivery blocks to a transportable media ("It will be appreciated that the encrypted content and the encrypted collection of keys for each content player can be delivered via any suitable medium. For example, the encrypted content might be delivered over a transmission medium such as the Internet..." – e.g. col. 10, lines 34-50 and col. 12, lines 34-41); delivering the transportable media to a mobile platform (e.g. col. 10, lines 34-62); decrypting delivery blocks from the transportable media (e.g. fig. 13 and col. 12, line 40- col. 13, line 9); collecting delivery blocks decrypted from the transportable media (e.g. fig. 13 and col. 12, line 40- col. 13, line 9); and reassembling the delivery blocks into a unencrypted content file on the mobile platform (e.g. fig. 13 and col. 12, line 40- col. 13, line 9).

### ***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.

Art Unit: 2135

2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

7. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

8. Claims 1-6, 8, 16-17 and 19-20 rejected under 35 U.S.C. 103(a) as being unpatentable over Mitchell (U.S. Patent No. 6,741,841)

As per **claim 1**, Mitchell discloses in a mobile communication system having an information content delivery system for delivering information to users aboard a mobile platform, a terminal data loading device permanently installed on the mobile platform, said terminal data loading device comprising:

a media unit ("Storage unit 52 can be a solid state memory, a disc drive capital or magnetic, a tape drive or other apparatus capable of storing video data or signals" – e.g. col. 7, lines 44-46) operatively connectable to a transportable media element containing media data ("storage unit 52 can include stored video data and audio data...Alternatively, storage unit 52 can include an on-board source, such as, video discs or video tapes...Alternatively, storage unit 52 can receive the video data through a

Art Unit: 2135

direct wireless link..." – e.g. col. 7, lines 35-46), the media unit being capable of reading the media data from the media element and outputting a media signal (e.g. col. 7, lines 35-46);

a control processor unit ("...computer based" – e.g. col. 7, line 24. Please note a control processor unit must reside in a computer) for receiving the media signal from the media unit and outputting an information signal (e.g. col. 7, lines 24-34); and a communication unit (e.g. col. 7, lines 65-66) for receiving the information signal and outputting a signal to a network (e.g. fig. 1). on the mobile platform ("mobile platform 35" in fig. 1 and abstract)

Mitchell does not disclose expressly the communication unit is a wireline communication unit and outputting a wireline signal. However, Mitchell discloses in col. 6, lines 34-37, "system 32 can be similar to an in-flight entertainment system for an airplane and includes a receiver 50, a storage unit 52, a network 54, and a display 56" and in fig. 2 and col. 8, lines 1-6, Mitchell discloses receiver 50 can include dual receivers.

To a person with ordinary skill in the art at the time of the invention, a conventional in-flight environment includes a wireline communication unit for receiving the information signal and outputting a wireline signal to a network since the in-flight entertainment system uses wire to carry a video signal extends to the passenger's display unit from the network of the in-flight entertainment environment.

Art Unit: 2135

At the time of the invention it would have been obvious to a person of ordinary skill in the art to incorporate wireline communication unit into Mitchell's system and to output a wireline signal.

The motivation of doing so would have been "display 56 can advantageously provide continuous visual images and audio content, whether or not platform 35 can receive signals from relay 38", as taught by Mitchell (col. 7, lines 24-34)

*First, examiner is aware of "a terminal data loading device permanently installed on the mobile platform" in the preamble of claim 1. A preamble is generally not accorded any patentable weight where it merely recites the purpose of a process or the intended use of a structure, and where the body of the claim does not depend on the preamble for completeness but, instead, the process steps or structural limitations are able to stand alone. See In re Hirao, 535 F.2d 67, 190 USPQ 15 (CCPA 1976) and Kropa v. Robie, 187 F.2d 150, 152, 88 USPQ 478, 481 (CCPA 1951).*

*Second, according to Oxford dictionary the word "permanently" is defined as "for ever". However, in light of the Applicant's specification on page 2, paragraph [0007], Applicant discloses "The TDL can be removed from the aircraft in order to perform diagnostics, maintenance, and repair." It appears to the examiner that TDL is portable and semi-permanently installed.*

As per **claim 2**, Mitchell discloses a device as applied above in claim 1. Mitchell further discloses wherein the wireline communication unit can receive a wireline signal from a network on a mobile platform and output an information signal (please see above

rationale in rejection claim 1), wherein the control processor unit can receive an information signal from the wireline communication unit and output a media signal (e.g. fig. 1 and please see above rationale in rejecting claim 1), and wherein the media unit can receive a media signal from the control processor unit and write the media signal to a transportable media element, the media unit being operatively connectable to the transportable media element (e.g. fig. 1 and please see above rationale in rejecting claim 1).

As per **claim 3**, Mitchell discloses a device as applied above in claim 1. Mitchell further discloses a wireless communication unit ("Receiver 50 in fig. 1 can be any type of wireless communication unit capable of receiving video data from relay 38" – e.g. col. 7, lines 8-17) for receiving an information signal from the control processor unit and sending a wireless signal to a receiving wireless communication unit in a wireless network, the receiving wireless communication unit outputting an information signal to the control processor unit (e.g. col. 3, lines 25 –30 and col. 6, line 49 – col. 7, line 17).

As per **claim 4**, Mitchell discloses a device as applied above in claim 1. Mitchell further discloses wherein the media element is a Digital Versatile Disk (DVD) (e.g. col. 7, line 38) and the media unit is a DVD drive (e.g. col. 7, lines 44-45 and col. 9, lines 15-20).



As per **claim 5**, Mitchell discloses a device as applied above in claim 1. Mitchell further discloses wherein the media element is a Compact Disc (CD) (e.g. col. 7, line 38) and the media unit is a CD drive (e.g. col. 7, lines 44-45 and col. 9, lines 15-20).

As per **claim 6**, Mitchell discloses a device as applied above in claim 1. Mitchell further discloses wherein the media element is a solid-state memory stick (e.g. col. 7, lines 44-46) and the media unit is a memory stick interface for reading and writing the memory stick (e.g. col. 9, lines 15-20)

As per **claim 8**, Mitchell discloses a device as applied above in claim 1. Mitchell further discloses wherein the media element can be safely used on the mobile platform without requiring a mobile platform precertification of the media element against harmful interactions with the mobile platform (e.g. col. 2, lines 62-64).

As per **claims 16 and 17**, they are rejected using the same rationale as rejecting claims 1-3.

As per **claims 19-20**, Mitchell discloses a method of off-loading content for use with a terminal data loader device on a mobile platform (e.g. col. 3, lines 16-25), comprising: connecting a transportable media element to a media unit (see above rationale in rejecting claim 1); receiving a wireline signal with a wireline communication unit connected to a network on a mobile platform (see above rationale in rejecting claim

Art Unit: 2135

1, col. 11, lines 21-30, col. 12, line 64- col.13, line 15 and figs. 1, 3-5); translating the wireline signal with the wireline communication unit to produce an information signal (see above rationale in rejecting claim 1, col. 11, lines 21-30, col. 12, line 64- col.13, line 15 and figs. 1, 3-5); sending the information signal from the wireline communication unit to a control processor unit (see above rationale in rejecting claim 1, col. 11, lines 21-30, col. 12, line 64- col.13, line 15 and figs. 1, 3-5); processing the information signal with the control processor unit to produce a media signal (see above rationale in rejecting claim 1, col. 11, lines 21-30, col. 12, line 64- col.13, line 15 and figs. 1, 3-5); sending the media signal from the control processor unit to the media unit (see above rationale in rejecting claim 1, col. 11, lines 21-30, col. 12, line 64- col.13, line 15 and figs. 1, 3-5); and writing the media signal to the transportable media element with the media unit so that the transportable media element contains media data corresponding to the media signal (see above rationale in rejecting claim 1, col. 11, lines 21-30, col. 12, line 64- col.13, line 15 and figs. 1, 3-5) and receiving a wireless signal from a wireless network with a wireless communication unit (see above rationale in rejecting claim 1, col. 11, lines 21-30, col. 12, line 64- col.13, line 15 and figs. 1, 3-5); translating the wireless signal with the wireless communication unit to produce an information signal (see above rationale in rejecting claim 1, col. 11, lines 21-30, col. 12, line 64- col.13, line 15 and figs. 1, 3-5); and sending the information signal to the control processor unit (see above rationale in rejecting claim 1, col. 11, lines 21-30, col. 12, line 64- col.13, line 15 and figs. 1, 3-5).

9. Claims 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Mitchell (U.S. Patent No. 6,741,841) as applied to claim 1 above, and further in view of Chan (U.S. Patent No. 6,775,087).

As per **claim 7**, Mitchell discloses the storage unit 52 can include "tape drives" in col. 9, line 18.

Mitchell does not expressly disclose wherein the media element is a Advanced Intelligent Tape (AIT) and the media unit is an AIT drive.

Chan discloses wherein the media element is a Advanced Intelligent Tape (AIT) and the media unit is an AIT drive (e.g. col. 3, lines 31-57).

Mitchell and Chan are analogous art because they are from the same field of endeavor of using tape drive to store data.

At the time of the time invention, it would have been obvious for a person with ordinary skill in the art to incorporate Chan's AIT and AIT drive into Mitchell's device.

The motivation of doing so would have been "access data at any one of up to 256 partitions in the magnetic tape without rewinding to the beginning of the magnetic tape and reading the system log to find the desired file", as taught by Chan (col. 3, lines 52-57)

10. Claims 9-10, 15, 18 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mitchell (U.S. Patent No. 6,741,841) as applied to claim 1 above, and further in view of Benaloh (U.S. Patent No. 6,886,098).

As per **claim 9**, Mitchell discloses a device as applied above in claim 1.

Mitchell does not disclose expressly a security processor unit for receiving an encrypted media signal and outputting an unencrypted media signal based on one or more predetermined cryptographic keys and utilizing a predetermined cryptographic algorithm, the security processor unit for receiving an unencrypted media signal and outputting an encrypted media signal based on one or more predetermined cryptographic keys and utilizing a predetermined cryptographic algorithm; and a physical key unit for receiving a physical key, the physical key unit and physical key for determining at least one cryptographic key, wherein a predetermined portion of the media data on the media element is encrypted.

Benaloh discloses a security processor unit for receiving an encrypted media signal and outputting an unencrypted media signal based on one or more predetermined cryptographic keys and utilizing a predetermined cryptographic algorithm, the security processor unit for receiving an unencrypted media signal and outputting an encrypted media signal based on one or more predetermined cryptographic keys and utilizing a predetermined cryptographic algorithm; and a physical key unit for receiving a physical key, the physical key unit and physical key for determining at least one cryptographic key, wherein a predetermined portion of the media data on the media element is encrypted (e.g. col. 6, line 22- col. 7, line 30).

Mitchell and Benaloh are analogous art because they are from the same field of endeavor of in-flight entertainment system.

At the time of the invention it would have been obvious to a person of ordinary skill in the art to incorporate a security processor unit for receiving an encrypted media signal and outputting an unencrypted media signal based on one or more predetermined cryptographic keys and utilizing a predetermined cryptographic algorithm, the security processor unit for receiving an unencrypted media signal and outputting an encrypted media signal based on one or more predetermined cryptographic keys and utilizing a predetermined cryptographic algorithm; and a physical key unit for receiving a physical key, the physical key unit and physical key for determining at least one cryptographic key, wherein a predetermined portion of the media data on the media element is encrypted into Mitchell's device.

The motivation for doing so would have been "any suitable type digital content is to be protected", as taught by Benaloh (col. 6, lines 24-26)

As per **claim 10**, the combined teachings of Mitchell and Benaloh disclose a device as applied above in claim 9. Mitchell and Benaloh further disclose wherein the wireline communication unit can receive a wireline signal from a network on a mobile platform and output an information signal (please see above rationale in rejecting claim 1), wherein the control processor unit can receive the information signal from the wireline communication unit and output an unencrypted media signal (please see above rationale in rejecting claim 1 and Benaloh – e.g. col. 6, lines 25-29), wherein the security processor unit can receive the unencrypted media signal and output an encrypted media signal (please see above rationale in rejecting claim 9), and wherein the media unit can receive an encrypted media signal from the security processor unit and write

the encrypted media signal to a transportable media element, the media unit being operatively connectable to the transportable media element (please see above rationale in rejecting claims 1 and 9).

As per **claim 15** is rejected using the same rationale as rejecting claims 9-10. Benaloh further discloses collecting the decrypted media signal into delivery blocks of a predetermined size (e.g. fig. 9 and col. 9, line 10-45).

**Claim 18** is rejected using the same rationale as rejecting claims 9-10.

As per **claim 21**, Mitchell discloses a method of off-loading secure content for use with a terminal data loader device on a mobile platform (e.g. col. 3, lines 16-25), comprising: connecting a transportable media element to a media unit (see above rationale in rejection claim 20); receiving a wireline signal with a wireline communication unit connected to a network on a mobile platform (see above rationale in rejecting claim 20 ); translating the wireline signal with the wireline communication unit to produce an information signal (see above rationale in rejecting claim 20); sending the information signal from the wireline communication unit to a control processor unit (see above rationale in rejecting claim 20); processing the information signal with the control processor unit to produce a media signal (see above rationale in rejecting claim 20) and writing the media signal to the transportable media element with the media unit (see above rationale in rejecting claim 20).

Mitchell does not disclose expressly processing the information signal with the control processor unit to produce an unencrypted media signal; sending the unencrypted media signal from the control processor unit to a security processor unit; encrypting the unencrypted media signal with the security processor unit to produce an encrypted media signal; and writing the encrypted media signal to the transportable media element with the media unit so that the transportable media element contains encrypted media data corresponding to the encrypted media signal.

Benaloh discloses processing the information signal with the control processor unit to produce an unencrypted media signal; sending the unencrypted media signal from the control processor unit to a security processor unit; encrypting the unencrypted media signal with the security processor unit to produce an encrypted media signal; and writing the encrypted media signal to the transportable media element with the media unit so that the transportable media element contains encrypted media data corresponding to the encrypted media signal (e.g. col. 6, line 22- col. 7, line 30).

Mitchell and Benaloh are analogous art because they are from the same field of endeavor of in-flight entertainment system.

At the time of the invention it would have been obvious to a person of ordinary skill in the art to incorporate Benaloh's processing the information signal with the control processor unit to produce an unencrypted media signal; sending the unencrypted media signal from the control processor unit to a security processor unit; encrypting the unencrypted media signal with the security processor unit to produce an encrypted media signal; and writing the encrypted media signal to the transportable media

Art Unit: 2135

element with the media unit so that the transportable media element contains encrypted media data corresponding to the encrypted media signal into Mitchell's method.

The motivation for doing so would have been "any suitable type digital content is to be protected", as taught by Benaloh (col. 6, lines 24-26)

11. Claims 11-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over the combined teachings of Mitchell (U.S. Patent No. 6,741,841) and Benaloh (U.S. Patent No. 6,886,098) as applied to claim 9 above, and further in view of Schneier ("Applied cryptography second edition", published in 1996)

As per **claims 11 and 13**, the combined teachings of Mitchell and Benaloh disclose a device as applied above in claim 9. Benaloh further discloses wherein the predetermined cryptographic algorithm is a symmetric key algorithm (e.g. col. 6, line 34).

Mitchell and Benaloh do not disclose expressly wherein the symmetric key algorithm is the digital encryption standard (DES), the triple-DES (3DES) protocol, or the advanced encryption standard (AES).

Schneier discloses the symmetric key algorithm is the digital encryption standard (DES), the triple-DES (3DES) protocol, or the advanced encryption standard (AES) (e.g. page 17).

Mitchell-Benaloh and Schneier are analogous art because they are from the same field of endeavor of using cryptography to protect data.



At the time of the invention it would have been obvious to a person of ordinary skill in the art to incorporate the symmetric key algorithm is the digital encryption standard (DES), the triple-DES (3DES) protocol, or the advanced encryption standard (AES) into Mitchell-Benahoh's device.

The motivation of doing so would have been "DES is the most popular computer encryption algorithm. DES is a U.S. and international standard", as taught by Schneier (page 17).

As per **claim 12**, the combined teachings of Mitchell and Benahoh disclose a device as applied above in claim 9. Benaloh further discloses wherein physical key unit determines at least one cryptographic key pair comprising a public and private key (e.g. col. 6, lines 44-48).

Mitchell-Benahoh do not disclose expressly the predetermined cryptographic algorithm is an asymmetric key algorithm.

Schneier discloses "an asymmetric key algorithms are designed so that the key used for encryption is different from the key used for decryption... In these systems, the encryption key is often called the public key, and the decryption key is often called private key." (pages 4-5)

Mitchell-Benaloh and Schneier are analogous art because they are from the same field of endeavor of using cryptography to protect data.

At the time of the invention it would have been obvious to a person of ordinary skill in the art to incorporate the asymmetric key algorithm into Mitchell-Benaloh's device.

The motivation of doing so would have been "the decryption key cannot be calculated from the encryption key... only a specific person with the corresponding decryption key can decrypt the message", as taught by Schneier (pages 4-5) and therefore enhance data security.

***Conclusion***

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. (See PTO-892)

Art Unit: 2135

**Contact Information**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to April Y. Shan whose telephone number is (571) 270-1014. The examiner can normally be reached on Monday - Friday, 8:00 a.m. - 5:00 p.m., EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kim Y. Vu can be reached on (571) 272-3859. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

AYS

9 February 2007  
AYS



KIM VU  
PATENT EXAMINER  
TECHNOLOGY CENTER 2100